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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
ONE DENVER PLACE — 999 18TH STREET — SUITE 1300
DENVER, COLORADO 80202-2413

JUN 24 1996

REF: 8ES-FO

MEMORANDUM

TO: Kelcy Yarbough Land, 8HWM-SR
Environmental Scientist

FROM: Gordon R. MacRae, 8ES-FO
Environmental Scientist

SUBJECT: Air Sampling Plan for the Richardson Flat Tailings Site

At your request, I have reviewed the Air Sampling Plan for Richardson Flat Tailings. Although this document follows the general format stated in Hi-Vol monitoring SOP, it seems to be lean on details and explanation. As is this sampling plan will not be approved.

It is stated in the sampling plan that sampler sites were to be strategically placed. What criteria for siting was used? Other siting questions are:

1 ° How far will the sampler be placed from the tailings area?

2 ° What elevation will the particulate inlet be positioned above the ground?

3 ° Are there potential railroad contamination problems at sites RFAM01 and RFAM06?

4 ° Are there potential roadway lead contamination problems at RFAM04 and RFAM05?

5 ° What type of generator will be used? Where will the generator(s) be placed relative to the samplers (distance, upwind/downwind, etc.)? Are there potential sample contamination problems due to the generator(s)?

6 ° What was the rationale with placing a single PM10 (respirable) sampler at RFAM05?

7 Questions regarding field operations pertain to collection schedule and filters. The sample collection schedule proposed is daily (every 24-hours). As discussed prior to the Whitewood Custom Treaters' monitoring, a shorter period better coincides with duirnal wind patterns. We suggested at that time that 12-hour sampling be considered during the day in order to

coincide with stronger wind from one direction. This type of sampling schedule is appropriate here as well. Regarding filters, none are mentioned detailing type to be used for the TSP monitors or PM10. Will metals only be sampled for on the Hi-Vol filters or PM10 as well?

8 Additionally, no discussion was presented on sampling duration (why only five days instead of ten days as in SOP?) and on assumptions regarding uniform wind field across the area (ie justifying one meteorological station sufficient for upwind/downwind sampling).

These type of questions are relatively simple but important to the success of a good and cost-effective program. The questions asked need to be answered in the document.

cc: John Philbrook, 8ES-PO
Keith Schwab, 8ES

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REGION VIII
ONE DENVER PLACE — 999 18TH STREET — SUITE 1300
DENVER, COLORADO 80202-2413

REF: 8ES-QA

JUN 19 1986

MEMORANDUM

TO: Keith Schwab, 8ES
FIT-DPO

FROM: Ralph Allen, 8ES-QA
QA/QC Chemist

THRU: for Juanita J. Hillman, 8ES-QA
Quality Assurance Officer

SUBJECT: Review Comments - TD R8-8605-12 Submitted 5/6/86

The sampling plan for Richardson Flat Tailings, Park City, Utah has been reviewed.

As it was presented, many technical issues and questions need to be resolved prior to approval. With an adequate and effective response to the concerns that follow, an approval of this plan can be short-coming.

1. The first paragraph of Page 3 contains the statement, "The meteorological station will be operated at the site for two days prior to initiating sample collection." This raises the following questions;

   - Will thess meteorological data be representative?
   - How will radical changes in meteorological conditions be applied to sampling procedures?
   - Why isn't precipitation measurements being included among monitored meteorological parameters? (Also see Page 8.)

2. Trees and ground vegetation are obstructions to air direction and velocity. Given that this area in question is mountainous, how will sampling and monitoring be affected with respect to restrictive vegetation?

3. With what appears to be a major highway to the north; a railroad passing from the southeast, curving up to the north around the tailings site, as well as, a dirt road due south many samples would be expected to contain a contamination contribution from these sources. How will the sampling procedure be adjusted to account for this problem?

4. Both precipitation and summer ground cover upon the tailings pile will reduce fugative dust migration. How then will this consideration be addressed?

5. Throughout the text, there is no mention of a field spike. Is it to be included? If so, how is it to be prepared?

6. Reportedly, "five samples for respirable particulate analysis" are to be collected at only one sampling site (RF-AM-05 at the northern most end of the site). With only one sampling site of this type how will this data be representative and comparable to the other sampling locations?

7. On Pages 4 and 5, the "dust suppression measures are recommended on this (southern) dirt road to prevent false loading of the sample filter" is too vague. How is this to be specifically accomplished? Also, what controls will be used to insure that this event has not taken place?

8. It is a well established fact that in the Rocky Mountains, valley (or basins) wind patterns change direction with daylight vs night time temperature fluctuations. With upslope conditions, the southern ambient air monitoring station may be picking up fugitive tailings dust. In the event that this event occurs, how will it be addressed?